EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S120	1	"6614443".pn.	USPAT	OR	OFF	2006/08/02 13:53
S119	163	("345"/$.ccls. or "382"/$.ccls. or "355"/$.ccls. or "358"/$.ccls.) and (sampl$3 same ((line near5 (orientation or class$2)) or ("X-major" or "X major")))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/08/02 09:16
S118	10	(S105) and (sampl$3 same ((line near5 (orientation or class$2)) or ("X-major" or "X major")))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/08/02 09:14
S117	18	(S103 or S104) and (sampl$3 same ((line near5 (orientation or class$2)) or ("X-major" or "X major")))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/08/02 09:14
S113	40	(S103 or S104) and (sampl$3 and ((line near5 (orientation or class$2)) or ("X-major" or "X major")))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/08/02 09:05
S116	6	(S109 or S110 or S111) and (sampl$3 same ((line near5 (orientation or class$2)) or ("X-major" or "X major")))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/08/02 09:02
S115	20	(S109 or S110 or S111) and (sampl$3 and ((line near5 (orientation or class$2)) or ("X-major" or "X major")))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/08/02 09:02
S114	15	(S105) and (sampl$3 and ((line near5 (orientation or class$2)) or ("X-major" or "X major")))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/08/02 09:02
S112	1	(S109 or S110 or S111) and ((pattern near5 sampl$3) and ((line near5 (orientation or class$2)) or ("X-major" or "X major")))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/08/02 09:02
S111	210	382/269.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/08/02 09:01
S110	228	382/268.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/08/02 09:01
S109	782	382/266.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/08/02 09:01

EAST Search History

S108	6	(S105) and ((pattern near5 sampl$3) and ((line near5 (orientation or class$2)) or ("X-major" or "X major")))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/08/02 09:01
S106	6	(S103 or S104) and ((pattern near5 sampl$3) and ((line near5 (orientation or class$2)) or ("X-major" or "X major")))	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/08/02 09:01
S105	172	345/613.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/08/02 08:50
S104	416	345/443.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/08/02 08:45
S103	470	345/611.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/08/02 08:45
S102	1	o'driscoll-gerard.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/08/02 08:45
S100	1	odriscoll-gerard.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/08/02 08:44
S79	1	odriscoll-gerard.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2006/08/02 08:43

Terms used **line antialias sample pattern orientation x major x major**

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Relevance scale

1 Combining edges and points for interactive high-quality rendering

Kavita Bala, Bruce Walter, Donald P. Greenberg

July 2003 **ACM Transactions on Graphics (TOG)**, Volume 22 Issue 3

Publisher: ACM Press

Full text available: pdf(4.52 MB) Additional Information: full citation, abstract, references, index terms

This paper presents a new interactive rendering and display technique for complex scenes with expensive shading, such as global illumination. Our approach combines sparsely sampled shading (points) and analytically computed discontinuities (edges) to interactively generate high-quality images. The *edge-and-point* image is a new compact representation that combines edges and points such that fast, table-driven interpolation of pixel shading from nearby point samples is possible, while respe ...

Keywords: interactive software rendering, silhouette and shadow edges, sparse sampling and reconstruction

2 Compressed multisampling for efficient hardware edge antialiasing

Philippe Beaudoin, Pierre Poulin

May 2004 **Proceedings of the 2004 conference on Graphics interface GI '04**

Publisher: Canadian Human-Computer Communications Society

Full text available: pdf(478.49 KB) Additional Information: full citation, abstract, references

Today's hardware graphics accelerators incorporate techniques to antialias edges and minimize geometry-related sampling artifacts. Two such techniques, brute force supersampling and multisampling, increase the sampling rate by rasterizing the triangles in a larger antialiasing buffer that is then filtered down to the size of the framebuffer. The sampling rate is proportional to the number of subsamples in the antialiasing buffer and, when no compression is used, to the memory it occupies. In tur ...

Keywords: edge antialiasing, graphics hardware, multisampling

3 Generating antialiased images at low sampling densities

Don P. Mitchell

August 1987 **ACM SIGGRAPH Computer Graphics , Proceedings of the 14th annual conference on Computer graphics and interactive techniques SIGGRAPH '87**, Volume 21 Issue 4

Publisher: ACM Press

Full text available: pdf(2.64 MB) Additional Information: full citation, abstract, references, citings, index terms

Ray tracing produces point samples of an image from a 3-D model. Constructing an antialiased digital picture from point samples is difficult without resorting to extremely high sampling densities. This paper describes a program that focuses on that problem.

While it is impossible to eliminate aliasing totally, it has been shown that nonuniform sampling yields aliasing that is less conspicuous to the observer. An algorithm is presented for fast generation of nonuniform sampling patterns that are ...

Results 1 - 3 of 3

Nothing Found

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Please review the Quick Tips below or for more information see the Search Tips.

Quick Tips

- Enter your search terms in lower case with a space between the terms.

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  ```

  You can also enter a full question or concept in plain language.

  ```
  Where are the sales offices?
  ```

- Capitalize proper nouns to search for specific people, places, or products.

  ```
  John Colter, Netscape Navigator
  ```

- Enclose a phrase in double quotes to search for that exact phrase.

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  ```

- Narrow your searches by using a + if a search term must appear on a page.

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  museum +art
  ```

- Exclude pages by using a - if a search term must not appear on a page.

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Combine these techniques to create a specific search query. The better your description of the information you want, the more relevant your results will be.

```
museum +"natural history" dinosaur -Chicago
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Your search for **+line +"anti alias" +"sample pattern" orientation x-major "x major"** did not return any results.

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  Where are the sales offices?
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  ```

- Enclose a phrase in double quotes to search for that exact phrase.

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  "museum of natural history" "museum of modern art"
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  museum +art
  ```

- Exclude pages by using a - if a search term must not appear on a page.

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  museum -Paris
  ```

Combine these techniques to create a specific search query. The better your description of the information you want, the more relevant your results will be.

```
museum +"natural history" dinosaur -Chicago
```

Terms used
line antialias sample pattern subpixel orientation x major x major

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1 Prefiltered antialiased lines using half-plane distance functions

Robert McNamara, Joel McCormack, Norman P. Jouppi

August 2000 **Proceedings of the ACM SIGGRAPH/EUROGRAPHICS workshop on Graphics hardware**

Publisher: ACM Press

Full text available: pdf(2.53 MB) Additional Information: full citation, abstract, references, index terms

We describe a method to compute high-quality antialiased lines by adding a modest amount of hardware to a fragment generator based upon half-plane edge functions. (A fragment contains the information needed to paint one pixel of a line or a polygon.) We surround an antialiased line with four edge functions to create a long, thin, rectangle. We scale the edge functions so that they compute signed distances from the four edges. At each fragment within the antialiased line, the four distances ...

Keywords: atialiasing, graphics accelerators, prefiltering

2 High speed high quality antialiased vector generation

Anthony C. Barkans

September 1990 **ACM SIGGRAPH Computer Graphics , Proceedings of the 17th annual conference on Computer graphics and interactive techniques SIGGRAPH '90**, Volume 24 Issue 4

Publisher: ACM Press

Full text available: pdf(2.87 MB) Additional Information: full citation, abstract, references, citings, index terms

A vector generation method is described in which a high quality image rendering scheme is coupled with a high speed scan-conversion algorithm.The rendering scheme consists of two parts. First a prefiltering method is used to antialias the vectors. Second a compositing technique is used to compose the vectors into the frame-buffer.The scan-conversion algorithm presented allows a single vector to be scan-converted by a either by a single processor or a set of processors running in parallel. When u ...

3 Hardware accelerated rendering of antialiasing using a modified a-buffer algorithm

Stephanie Winner, Mike Kelley, Brent Pease, Bill Rivard, Alex Yen

August 1997 **Proceedings of the 24th annual conference on Computer graphics and interactive techniques**

Publisher: ACM Press/Addison-Wesley Publishing Co.

Full text available: pdf(113.06 KB) Additional Information: full citation, references, citings, index terms

Keywords: antialiasing, image partitioning, plane equation evaluation, scanline, texture mapping, transparency

4 Combining edges and points for interactive high-quality rendering

Kavita Bala, Bruce Walter, Donald P. Greenberg

July 2003 **ACM Transactions on Graphics (TOG)**, Volume 22 Issue 3

Publisher: ACM Press

Full text available: pdf(4.52 MB) Additional Information: full citation, abstract, references, index terms

This paper presents a new interactive rendering and display technique for complex scenes with expensive shading, such as global illumination. Our approach combines sparsely sampled shading (points) and analytically computed discontinuities (edges) to interactively generate high-quality images. The *edge-and-point* image is a new compact representation that combines edges and points such that fast, table-driven interpolation of pixel shading from nearby point samples is possible, while respe ...

Keywords: interactive software rendering, silhouette and shadow edges, sparse sampling and reconstruction

5 An interactive introduction to OpenGL programming

Dave Shreiner, Ed Angel, Vicki Shreiner

August 2004 **Proceedings of the conference on SIGGRAPH 2004 course notes SIGGRAPH '04**

Publisher: ACM Press

Full text available: pdf(3.35 MB) Additional Information: full citation, abstract

"An Interactive Introduction to OpenGL Programming" provides an overview of the OpenGL Application Programming Interface (API), a library of subroutines for drawing three-dimensional objects and images on a computer. After the completion of the course, a programmer able to write simple programs in the "C" language will be able to create an OpenGL application that has moving 3D objects that look like they are being lit by lights in the scene and by specifying colors or images that should be used ...

6 An efficient antialiasing technique

Xiaolin Wu

July 1991 **ACM SIGGRAPH Computer Graphics , Proceedings of the 18th annual conference on Computer graphics and interactive techniques SIGGRAPH '91**, Volume 25 Issue 4

Publisher: ACM Press

Full text available: pdf(1.28 MB) Additional Information: full citation, abstract, references, citings, index terms

An intuitive concept of antialiasing is developed into very efficient antialiased line and circle generators that require even less amount of integer arithmetic than Bresenham's line and circle algorithms. Unlike its predecessors, the new antialiasing technique is derived in spatial domain (raster plane) under a subjectively meaningful error measure to preserve the dynamics of curve and object boundaries. A formal analysis of the new antialiasing technique in frequency domain is also conducted. ...

Keywords: antialiasing, convolution, curve digitization, digital geometry

7 Compressed multisampling for efficient hardware edge antialiasing

Philippe Beaudoin, Pierre Poulin

May 2004 **Proceedings of the 2004 conference on Graphics interface GI '04**

Publisher: Canadian Human-Computer Communications Society

Full text available: pdf(478.49 KB) Additional Information: full citation, abstract, references

Today's hardware graphics accelerators incorporate techniques to antialias edges and minimize geometry-related sampling artifacts. Two such techniques, brute force supersampling and multisampling, increase the sampling rate by rasterizing the triangles in a larger antialiasing buffer that is then filtered down to the size of the framebuffer. The sampling rate is proportional to the number of subsamples in the antialiasing buffer and, when no compression is used, to the memory it occupies. In tur ...

Keywords: edge antialiasing, graphics hardware, multisampling

8 Stochastic sampling in computer graphics

Robert L. Cook
January 1986 **ACM Transactions on Graphics (TOG)**, Volume 5 Issue 1
Publisher: ACM Press

Full text available: pdf(4.08 MB) Additional Information: full citation, abstract, references, citings, index terms, review

Ray tracing, ray casting, and other forms of point sampling are important techniques in computer graphics, but their usefulness has been undermined by aliasing artifacts. In this paper it is shown that these artifacts are not an inherent part of point sampling, but a consequence of using regularly spaced samples. If the samples occur at appropriate nonuniformly spaced locations, frequencies above the Nyquist limit do not alias, but instead appear as noise of the correct average intensity. T ...

9 The Reyes image rendering architecture

Robert L. Cook, Loren Carpenter, Edwin Catmull
August 1987 **ACM SIGGRAPH Computer Graphics , Proceedings of the 14th annual conference on Computer gra phics and interactive techniques SIGGRAPH '87**, Volume 21 Issue 4
Publisher: ACM Press

Full text available: pdf(944.35 KB) Additional Information: full citation, abstract, references, citings, index terms

An architecture is presented for fast high-quality rendering of complex images. All objects are reduced to common world-space geometric entities called micropolygons, and all of the shading and visibility calculations operate on these micropolygons. Each type of calculation is performed in a coordinate system that is natural for that type of calculation. Micropolygons are created and textured in the local coordinate sysem of the object, with the result that texture filtering is simplified and im ...

Results 1 - 9 of 9

Key: IEEE JNL = IEEE Journal or Magazine, IEE JNL = IEE Journal or Magazine, IEEE CNF = IEEE Conference, IEE CNF = IEE Conference, IEEE STD = IEEE Standard

1. **Using line segments as structuring elements for sampling-invariant measurements**
   Hendriks, C.L.L.; van Vliet, L.J.;
   Pattern Analysis and Machine Intelligence, IEEE Transactions on
   Volume 27, Issue 11, Nov. 2005 Page(s):1826 - 1831
   IEEE JNL

2. **Natural representations for straight lines and the Hough transform on discrete arrays**
   Svalbe, I.D.;
   Pattern Analysis and Machine Intelligence, IEEE Transactions on
   Volume 11, Issue 9, Sept. 1989 Page(s):941 - 950
   IEEE JNL

3. **Microstructure and electromigration in copper damascene lines**
   Arnaud, L.; Tartavel, G.; Berger, T.; Mariolle, D.; Gobil, Y.; Touet, I.;
   Reliability Physics Symposium Proceedings, 1999. 37th Annual. 1999 IEEE International
   23-25 March 1999 Page(s):263 - 269
   IEEE CNF

4. **Non-uniformly sampled feature extraction method for kanji character recognition**
   Yamada, K.;
   Document Analysis and Recognition, 1997., Proceedings of the Fourth International Conference on
   Volume 1, 18-20 Aug. 1997 Page(s):200 - 205 vol.1
   IEEE CNF

5. **Visual measurement of orientation using ceiling features**
   Lang, S.; Roth, G.; Green, D.A.; Burhanpurkar, V.;
   Instrumentation and Measurement Technology Conference, 1994. IMTC/94. Conference Proceedings. 10th Anniversary. Advanced Technologies in I & M., 1994 IEEE
   10-12 May 1994 Page(s):552 - 555 vol.2
   IEEE CNF

6. **Size normalization in on-line unconstrained handwriting recognition**
   Beigi, H.S.M.; Nathan, K.; Clary, G.J.; Subrahmonia, J.;
   Image Processing, 1994. Proceedings. ICIP-94., IEEE International Conference
   Volume 1, 13-16 Nov. 1994 Page(s):169 - 173 vol.1
   IEEE CNF

7. **Interfered-character recognition by removing interfering-lines and adjusting feature weights**
   Yi-Hong Tseng; Hsi-Jian Lee;
   Pattern Recognition, 1998. Proceedings. Fourteenth International Conference on
   Volume 2, 16-20 Aug. 1998 Page(s):1865 - 1867 vol.2
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8. **Mössbauer study of orientation in γ-Fe2O3recording tapes**
   Haneda, K.; Morrish, A.;
   Magnetics, IEEE Transactions on
   Volume 12, Issue 6, Nov 1976 Page(s):767 - 769
   IEEE JNL

9. **Using átuous Algorithm and Modulus Maximum Lines to Detect R-wave of ECG Signal**
   Yang Li; Peng Chenglin; Wu Huafeng; Zhao Zhiqiang; Min Min;
   Engineering in Medicine and Biology Society, 2005. IEEE-EMBS 2005. 27th Annual International Conference of the
   01-04 Sept. 2005 Page(s):1270 - 1273
   IEEE CNF

10. **Penetration field studies on melt-textured $YBa_2Cu_3O_{7-\delta}$ from low field ultrasonic measurements**
Li, Z.-X.; Levy, M.; Sarma, B.K.; Salem-Sugui, S., Jr.; Shi, D.; Crabtree, G.W.;
Applied Superconductivity, IEEE Transactions on
Volume 3, Issue 1, Mar 1993 Page(s):1406 - 1408

IEEE JNL

11. **Design parameters of a 3-dimensional ultrasonic pulse controlled memory device with single domain coherently magnetized cobalt, iron and nickel particles in a non-magnetic matrix**
Schroder, K.;
Magnetics, IEEE Transactions on
Volume 10, Issue 3, Sep 1974 Page(s):567 - 570

IEEE JNL

12. **Dense photometric stereo using tensorial belief propagation**
Kam-Lun Tang; Chi-Keung Tang; Tien-Tsin Wong;
Computer Vision and Pattern Recognition, 2005. CVPR 2005. IEEE Computer Society Conference on
Volume 1, 20-25 June 2005 Page(s):132 - 139 vol. 1

IEEE CNF

13. **Mosaicing new views: the Crossed-Slits projection**
Zomet, A.; Feldman, D.; Peleg, S.; Weinshall, D.;
Pattern Analysis and Machine Intelligence, IEEE Transactions on
Volume 25, Issue 6, June 2003 Page(s):741 - 754

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14. **A high precision 3D object reconstruction method using a color coded grid and NURBS**
Lavoie, P.; Ionescu, D.; Petriu, E.;
Image Analysis and Processing, 1999. Proceedings. International Conference on
27-29 Sept. 1999 Page(s):370 - 375

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15. **Effects of scratching on losses in 3-percent Si-Fe single crystals with orientation near**
Nozawa, T.; Yamamoto, T.; Matsuo, Y.; Ohyo, Y.;
Magnetics, IEEE Transactions on
Volume 15, Issue 2, Mar 1979 Page(s):972 - 981

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16. **On-line data-driven fuzzy clustering with applications to real-time robotic tracking**
Liu, P.X.; Meng, M.; Chao Hu;
Robotics and Automation, 2004. Proceedings. ICRA '04. 2004 IEEE International Conference on
Volume 5, 26 April-1 May 2004 Page(s):5039 - 5044 Vol.5

IEEE CNF

17. **Biometric authentication using finger and palmar creases**
Junta Doi; Yamanaka, M.;
Virtual Environments, Human-Computer Interfaces and Measurement Systems, 2004. (VECIMS). 2004 IEEE Symposium on
12-14 July 2004 Page(s):72 - 76

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18. **Fabrication techniques for tunable surface acoustic wave resonators on giant /spl Delta/E layers**
Smole, P.; Ruile, W.; Korden, C.; Ludwig, A.; Krassnitzer, S.; Pongratz, P.;
Ultrasonics, 2003 IEEE Symposium on
Volume 1, 5-8 Oct. 2003 Page(s):114 - 117 Vol.1

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19. **Determination of unknown particle charges in a thunder cloud based upon detected electric field vectors**
Drake, D.; Simpson, T.; Smithmier, L.; Rheingans, P.;
Visualization '97., Proceedings
19-24 Oct. 1997 Page(s):479 - 482, 581

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20. **Spatio-temporal analysis using tensors**
Knutsson, H.; Granlund, G.H.;
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6-8 Sept. 1989 Page(s):11

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21. **Transport properties of bulk-bicrystal grain boundaries in artificially joined large-grain YBCO**
Bradley, A.D.; Doyle, R.A.; Charalambous, D.; Lo, W.; Cardwell, D.A.; Campbell, A.M.; Vanderbenden, P.;
Applied Superconductivity, IEEE Transactions on
Volume 9, Issue 2, June 1999 Page(s):2038 - 2041

IEEE JNL

22. **Enhancement of superconducting properties of textured YBCO using double seeded technique**
Zhou, Y.X.; Fang, H.; Balachandran, U.; Salama, K.;
Applied Superconductivity, IEEE Transactions on
Volume 13, Issue 2, June 2003 Page(s):3072 - 3075

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23. **Simultaneous AC and DC magnetic field measurements in residential areas: implications for resonance theories of biological effects**
Wong, P.S.; Sastre, A.;
Power Delivery, IEEE Transactions on
Volume 10, Issue 4, Oct. 1995 Page(s):1906 - 1912

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24. **Superconducting wire test**
Yamada, R.; Ishimoto, H.; Price, M.;
Magnetics, IEEE Transactions on
Volume 13, Issue 1, Jan 1977 Page(s):552 - 555

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25. **Anisotropy induced signal waveform modulation of DC magnetron sputtered thin film disks**
Teng, E.; Ballard, N.;
Magnetics, IEEE Transactions on
Volume 22, Issue 5, Sep 1986 Page(s):579 - 581

IEEE JNL

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IEEE STD	IEEE Standard

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